

WHAT IS CLAIMED:

1. A catheter comprising:

a first high pressure supply lumen;  
a second low pressure discharge lumen;

5 said low pressure discharge lumen defining a central axis;

said high pressure supply lumen having a proximal end and having a distal end;

10 a slit communicating with said high pressure lumen proximate said distal end, said slit directing a jet of fluid in a direction away from said central axis;

a control body positioned proximal of said slit to turn said sheet jet through an angle with respect to said central axis;

a sheath surrounding said body defining a throat for providing pressure recovery for said jet.

2. The device of claim 1, further including an aperture located proximal of said distal end for receiving a guide wire.

3. A thrombectomy catheter comprising:

20 a discharge lumen;

a fluid supply lumen;

said supply lumen connected to a nozzle;

whereby said nozzle generates a jet of fluid;

a control body located proximate said nozzle;

25 whereby said fluid jet attaches to and follows said control body, generating a fluid flow;

a throat communicating with said discharge lumen for directing said fluid flow out of said discharge lumen.

4. A catheter for removing occlusive material from a patient comprising:

5 a fluid supply lumen terminating in a nozzle said nozzle forming a fluid jet;

a control body located proximate said jet for limiting entrainment on one side of said jet;

10 whereby said jet becomes attached to said body and follows the contour of said body;

a discharge lumen located proximate said body to receive fluid from said jet.

15 5. A catheter having a distal end and having a proximal end, said catheter comprising:

a high pressure lumen;

a low pressure lumen;

20 a deflected jet proximate said distal end for collecting occlusive material and for directing said occlusive material into said low pressure lumen.

6. The device of claim 5 further including a impeller located distal of said deflected jet.

25 7. The device of claim 5 further including a blade located distal of said deflected jet.

9. The device of claim 5 further including a radio frequency energy probe located distal of said deflected jet.

10. The device of claim 5 further including an ultrasonic energy probe located distal of said deflected jet.

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